

claims which prove that the present claims are not independent and distinct, i.e., Waki has claims to a pigment dispersion, ink, and process for preparing the dispersion, implying that inventions IV and I and II are not distinct. The Waki claims are set forth below.

1. A water-based pigment dispersion comprising:

a pigment and a cross-linked thermoplastic resin containing carboxylic group, wherein said pigment is dispersed with a water soluble or self-emulsifying thermoplastic resin containing carboxylic group and, after said pigment is dispersed, said water soluble or self-emulsifying thermoplastic resin is cross-linked with a cross-linking agent to form said cross-linked thermoplastic resin containing carboxylic group under the condition that the dispersion obtained after the completion of the cross-linking has a pH of 6.0 to 7.8, in which the ratio of said pigment to said water soluble or self-emulsifying thermoplastic resin (pigment/thermoplastic resin (weight ratio of effective solid matter)) is 10/10 to 10/1, and the ratio of said cross-linking agent to said water soluble or self-emulsifying thermoplastic resin (cross-linking agent/thermoplastic resin (weight ratio of effective solid matter)) is 1/100 to 50/100.

2. The water-based pigment dispersion of claim 1, wherein the water soluble or self-emulsifying thermoplastic resin containing carboxylic group is an acrylic resin or a polyurethane, and the thermoplastic resin has number average molecular weight of 2000 to 20000 and acid value of 30 to 300.

3. The water-based pigment dispersion of claim 1, wherein the cross-linking agent is an aqueous polymer of which reaction point for cross-linking is carboxylic group.

4. A water-based ink containing the water-based pigment dispersion of claim 1.

5. A process for preparing the water-based pigment dispersion of claim 1, comprising the steps of:

(1) predispersing a pigment and a water soluble or self-emulsifying thermoplastic resin containing carboxylic group to give a mixture,
(2) treating said mixture by a dispersing machine so as to disperse said pigment with said thermoplastic resin to give a water-based dispersion,
(3) subsequently cross-linking said thermoplastic resin in said dispersion with a cross-linking agent to give a water-based dispersion having a pH of 6.0 to 7.8 and comprising said pigment and the cross-linked thermoplastic resin containing carboxylic group, and
(4) adjusting the pH of the dispersion of step (3) containing said pigment and the cross-linked thermoplastic resin to alkaline range.

6. The water-based pigment dispersion of claim 1, wherein the solid matter concentration of the water-based pigment dispersion is 5 to 40% by weight.

7. The water-based pigment dispersion of claim 1, wherein said cross-linking agent is a member selected from the group consisting of a polycarbodiimide, an oxazoline polymer, a polyethyleneimine, an oligoester (meth)acrylate oligomer, and a urethane (meth)acrylate oligomer.

For these reasons, reconsideration of the restriction requirement is requested.

Respectfully submitted,

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Information Disclosure Statement

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